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GULF BIOLOGIC STATION

CAMERON, LA.

BULLETIN No. 10

ANNOTATED CATALOGUE

OF

GRASSES GROWING WITHOUT CULTIVATION IN LOUISIANA

BY

R. S. COCKS, M. A.

ISSUED BY THE

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GULF BIOLOGIC STATION

CAMERON, LA.

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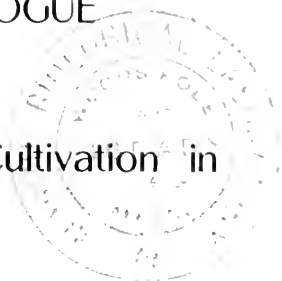
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ANNOTATED CATALOGUE

OF

Grasses Growing Without Cultivation in
Louisiana.

The following catalogue of Louisiana grasses represents the results of collections made during parts of every summer since 1897, with the exception of two or three quarantine years when collecting was impossible. During this period the writer has visited all the extreme portions of the State, both north, south, east and west, and a very great part of the intervening territory, especially all parts which have any distinctive geographic features such as were likely to be accompanied by corresponding differences in the flora. There is, of course, the drawback in such a collection that only one season of the year is represented, but with grasses this objection is not so great as with most other families of plants, as the vast majority bloom and are in their most perfect condition in the late summer and early autumn. Consequently while the writer can hardly hope that this catalogue is exhaustive, it is much nearer so than could be the case with any other large family collected only at one season of the year, and no doubt includes a very large proportion of our wild grasses.

In view therefore of the special interest taken in grasses by agriculturists and others as shown by the very large number of enquiries received on this subject, and taking into consideration the fact that none of the published manuals even approximate accuracy concerning the species which occur in Louisiana, it seems worth while to publish a list which cannot be very far from complete, judging from the number here included as compared with the number of grasses in other States of a similar size.

As the value of such a list depends entirely upon the authenticity of the identifications, it should be stated at the outset that there are very few species whose identification rests solely on the authority of the writer. The grasses collected the first year or so were all carefully compared with specimens in the herbarium of Rev. A. B. Langlois, which had been named by Prof. Vasey of the United States Department of Agriculture. A few were submitted to the late Dr. Mohr, of Mobile, and compared by him with specimens in his collection determined by various experts, while for the past two or three years the writer has been sending species, especially of *Panicum*, to Dr. A. S. Hitchcock, of the United States Department of Agriculture, to whom and to his assistant, Mrs. Chase, the writer desires to express his most grateful thanks for their most courteous and ready assistance not only in determining very many species, but in clearing up very many perplexities of nomenclature and other difficulties.

Unless expressly stated to the contrary, the grasses of this catalogue are in the herbarium of the writer and were collected by him personally. Those that remain, between twenty and thirty in number, are included on the authority of the Rev. A. B. Langlois, as published in his catalogue, "Provisoire de Planteis de la Basse—Louisiana, 1887," on the authority of Dr. Chas. Mohr, in his "Flora of Alabama," of Prof. Small in his "Flora of the Southern States," and of Dr. A. S. Hitchcock and of Dr. Lamson Scribner, in various monographs on certain families published by the United States Department of Agriculture.

In this list reference has not been given to every published description and figure of the species, but the writer has selected the four publications in which can be found descriptions and figures of most of them. These are Britton & Brown, "Illus-Small Flora of the Southeastern United States; Beale Manual of Grasses of North America, and American Grasses, Vols. I and II, published by the United States Department of Agriculture.

No previous attempt has been made to publish a complete list of the grasses of the State, for the early floral catalogue of Riddell, Hale & Carpenter did not include grasses,

and Featherman's list in 1870 and that of Langlois in 1887 only included portions of the State, consequently a very large number of species are here recorded for the first time as occurring in Louisiana.

The geographic position of Louisiana makes the plant distribution of peculiar interest, for not only does its situation on the verge of the tropics make it the northern bound any line of many southern plants and the southern boundary line of many northern plants, but it is equally on the boundary line of the Eastern and Western divisions of the continent, so that here again many Eastern species have their Western limit, and many Western species their Eastern limit, the number of this last division being particularly large.

While it is not possible to say of each species exactly what its limits are, the following seem to be undoubted instances of each of the above named divisions:

(I) Grasses which have their northern limit in Louisiana.—*Panicum leucophaeum*, *Panicum pyriforme*, *Panicum albomarginatum*, *Panicum pseudanceps*, *Panicum manatense*, *Panicum paspaloides*, *Luziola Peruviana*, *Aristida palustris*, *Eriochloa punctata*, *Paspalum conjugatum*, *Paspalum vaginatum*.

(II) Grasses which have their southern limit in Louisiana.—*Panicum Roanokense*, *Panicum nitidum*, *Panicum fitimiculme*, *Brachyelytrum erectum*, *Agrostis perennans*, *Holcus lanatus*, *Dactylis glomeratus*, *Panicularia fluitans*, *Polypogon Mouspelienis*.

(III) Grasses which have their western limit in Louisiana.—*Echinochloa longearistata*, *Panicum verrucosum*, *Panicum lanuginosum*, *Panicum Joorii*, *Cenchrus machrocephalus*, *Hydrochloa fluitans*, *Stipa avencea*, *Sporobolus Drummondii*, *Danthonia sericea*, *Gymnopogon brevifolius*.

(IV) Grasses that have their eastern limit in Louisiana.—*Amphilophis exaristata*, *Paspalum lividum*, *Paspalum Drummondii*, *Panicum platyphyllum*, *Panicum Helleri*, *Bonteloua hirsuta*, *Tridens Texanus*, *Leptochloa imbricata*, *Leptochloa Nealleyi*, *Diplachne Halei*.

There are many other instances, but these are sufficient to show that Louisiana is the meeting ground of these four divisions of the Flora of the continent. It is also interesting

to note that of the 290 species of grass here listed no less than 169 have a range northern enough to be included in Britton & Brown's manual; i. e., to the southern boundary of Virginia and Kentucky. About twenty-five species seem to be undoubtedly introduced European species, and some six or eight Asiatic, but the writer has not been able to decide exactly how many species are native and how many are introduced from elsewhere.

The following species, according to Prof. Small's Flora, occur in Louisiana only of the United States: *Panicum prostratum*, *Luziola Peruviana*, *Trisetum Loudovicianum*, *Leptochloa scabra*, *Vetiveria Zizanioides*.

A comparison with the grasses of Alabama as set forth by Dr. Mohr shows that the two States have about the same number of grasses, though no doubt Alabama has been much more thoroughly explored than Louisiana, which may eventually prove to have a good many more. Of these, 190 species, or about 65 per cent, occur in both States, the proportion of grasses to the whole flora also seems to be nearly the same in both, perhaps slightly larger in Louisiana. According to Dr. Mohr grasses form somewhat over 11 per cent of the flora of Alabama, while of the writer's collection of Louisiana plants, grasses form about 12 per cent.

The accompanying notes relative to the distribution of grasses in the State are necessarily extremely imperfect and many of the grasses are distributed much more widely over the State than the writer has observed them.

In conclusion, the writer desires to express his thanks to the Board of Managers of the Gulf Biologic Station for substantial help during the past two years in collecting material, and especially to Prof. B. H. Guilbeau, the Director of the Station, at whose suggestion this paper has been prepared, for every courtesy and assistance.

POACEAE (GRAMINEAE). GRASS FAMILY TRIPSACUM L. SYST PL. ED. 10, 2: 1261. 1759

TRIPSACUM DACTYLOIDES L.—Britton & Brown, Illus. Flora, Vol. I, 98, Fig. 210. Small Flora 53. Beale 18, Fig. 3. Am. Grasses I, 7, Fig. In wet or swampy soil in all parts of the State.

ERIANTHUS MICHX. FL. BOR. AM. I. 54. 1803

ERIANTHUS ALOPECUROIDES (L.) ELL. (*Andropogon alopecuroides* L.)—Britton & Brown, Illus. Flora I, 98, Fig. 211. Small Flora 55. Beale 27. Fig. 8. In swamps around New Orleans, probably all over the State in swampy grounds.

ERIANTHUS SACCHAROIDES MICHX.—Britton & Brown, Illus. Flora, Vol. I, 99, Fig. 212. Small Flora 55. Beale 27. Collected by the writer in New Orleans, near Baton Rouge and in West Feliciana.

ERIANTHUS BREVIBARBIS MICHX. (*Erianthus alopecuroides* Var. *Brevibarbis* Chap. Flora.) (*E. saccharoides* Subspec. *brevibarbis* Hackel.)—Britton & Brown, Illus. Flora I, 99, Fig. 214. Small Flora 55. Beale 28. In wet situations over the entire State.

ERIANTHUS COMPACTUS NASIL.—Britton & Brown, Illus. Flora I, 99, Fig. 213. Small Flora 55. Am. Grasses I, 9, Fig. 3. In wet grounds around New Orleans. Observed also in swamps around Ponchatoula; also near Lake Charles.

ERIANTHUS STRICTUS BALD.—Small Flora 56. Am. Grasses I, 10, Fig. 4. In swamps in vicinity of Baton Rouge. No doubt more widely distributed.

ERIANTHUS CONTORTUS ELL.—Small Flora 55. Collected only once, near Covington.

COIX L. SP. PL. 972. 1753

COIX LACHRYMA—JOBI L.—Beale 20, Fig. 4. A native of Southern Europe. Inserted here on the authority of Rev. A. B. Langlois. Catalogue *Provisoire de la Basse-Louisiane*, 1887.

MANISURUS L. MANT. 2. 164. 1771

MANISURUS CYLINDRICA (MICHX.) KUNTZE. (*Rottboellia cylindrica* (Michx.) Chapm.)—Small Flora 56. Beale 31. Am. Grasses II, 11, Fig. 307. Fairly common in the neighborhood of Slidell and Pearl River in wet pine barrens.

MANISUS RUGOSA (NUTT) KUNTZE. *Rottboellia rugosa* Nutt.—Britton & Brown, Illus. Flora I, 100, Fig. 215. Small Flora 57. Beale 30. Am. Grasses II, 10, Fig. 306. Found abundantly near Mandeville.

MANISURUS TESSELATA (STEUD) SCRIBN. (*Rotboellia corrugata* Chap.)—Small Flora 57. Inserted here on the authority of Prof. Small. This species has not been seen by the writer. According to Small, "in low pine Alabama to Louisiana."

HACKELOCHLOA KUNTZE REV. GEN. PL. 2. 777. 1891

HACKELOCHLOA GRANULARIS (L.) KUNTZE. (*Cenchrus granularis* (L.) (*Manisuris granularis* Sw.)—Small Flora 57. Beale 33, Fig. 10. Am. Grasses I, 12, Fig. 6. In dry soil near Pearl River. Adventive from the tropics.

ANDROPOGON L. SP. PL. 2. 1045. 1753

ANDROPOGON TENER KUNTH. (*Schizachyrium tenerum* Nees.)—Small Flora 58. Beale 45. Am. Grasses II, 13, Fig. 309. In sandy poor soil over the entire State.

ANDROPOGON ARGYRAEUS SCHULT. (*A. argentatus* Ell.)—Britton & Brown, Illus. Flora I, 17, Fig. 11. In cultivated sandy soil. Over the whole State.

ANDROPOGON ELLIOTTI CHAPM.—Britton & Brown, Illus. Flora I, 103, Fig. 222. Small Flora 63. Beale 51. Am. Grasses I, 18, Fig. 12. In dry pine barrens. St. Tammany and Tangipahoa.

ANDROPOGON FURCATUS MUHL.—Britton & Brown, Illus. Flora I, 102, Fig. 219. Small Flora 64. Beale 55. Am. Grasses III, 24, Fig. 13. In sandy soils over the entire State

ANDROPOGON GLOMERATUS WALT.) B. S. P. (*Cinna glomerata* Walt.) (*Andropogon macrourus* Michx.)—Britton & Brown, Illus. Flora I, 102, Fig. 221. Small Flora 61. Beale 52. Am. Grasses II, 21, Fig. 317. Abundant over the entire State in poor and worn out ground.

ANDROPOGON MOHRII HACK. (*Andropogon Liebmani* Var. *Mohrii* Hack.)—Small Flora 63. Beale 53. Am. Grasses II, 18, Fig. 314. Plant has not been collected by writer. Inserted here on authority of Small & Scribner. According to Small, "Low pine lands Western Florida to Louisiana."

ANDROPOGON SCOPARIUS MICHX.—Britton & Brown. Illus. Flora I, 101, Fig. 216. Small Flora 59. Beale 46. Am. Grasses I, 19, Fig. 13. Common everywhere on poor, sandy soil.

ANDROPOGON VIRGINICUS L. (*Andropogon dissitiflorus Michx.*) (*A. Virginicus* Var. *viridis Hackel.*)—Britton & Brown, Illus. Flora I, 102, Fig. 220. Small Flora 62. Beale 51. Am. Grasses I, 16, Fig. 10. In poor, sandy soil almost everywhere.

ANDROPOGON SCOPARIUS VILLOSISSIMUS KEARN.—Studies on American Grasses Bull. 24, by Scribner and Ball. United States Department of Agriculture. Inserted here on the authority of Scribner and Ball, as per above mentioned bulletin. Collected at Lake Charles by S. M. Tracy, at Oberlin by C. R. Ball.

AMPHILOPHIS NASH.

AMPHILOPHIS EXARISTATUS NASH. (*Andropogon saccharoides submuticus Vasey.*)—Small Flora 65. Collected only in Cameron Parish, growing in ponds and marshes near the sea. According to Small, "in dry soil Texas."

SORGHUM PERS. SYN. PL. 1: 101. 1805

SORGHUM HALAPENSE (L.) PERS. (*Holcus Halapensis* L.) (*Andropogon Halepensis Brot.*)—Britton & Brown, Illus. Flora I, 104, Fig. 225. Small Flora 66. Beale 58. Am. Grasses II, 25, Fig. 326. A most pernicious plant over the State. According to Dr. Mohr, introduced from Syria.

SORGHUM VULGARE PERS. SYN. PL. 1:101. (*HOLCUS SORGHUM* L.) (*Andropogon sorghum sativus Hackel.*)—Very common as a weed in waste ground around New Orleans. According to Dr. Mohr, sometimes becoming a troublesome weed.

CHRYSOPOGON TRIN. FUND. AGROST. 187. 1820

CHRYSOPOGON AVENACEUS (MICHX) CHAP. (*Andropogon acenaceus Michx.*) (*A. ciliatus Ell.*) (*Sorghum nutans Gray.*)—Britton & Brown, Illus. Flora I, 104, Fig. 224. Small Flora 66. Beale 59. Am. Grasses I, 21, Fig. 15. Though not

particularly common, has been observed by the writer in almost every portion of the State in many different situations.

CHRYSOPOGON NUTANS LINNAEUS DOELL. (*Andropogon nutans* L.) (*Sorghum nutans* Chap.) (*Andropogon nutans Linnacanus Hackl.*)—Small Flora 66. In dry sandy soil. Collected by the writer in parishes of St. Tammany and Calcasieu.

VETIVERIA THOUARS.

VETIVERIA ZIZANOIDES (L.) NASH.—Small Flora 67. Inserted here on the authority of Small, "cultivated and escaping into fields in Louisiana."

PASPALUM L. SYST. ED. 2: 855. 1805

PASPALUM ALTISSIMUM LE CONTE.—Studies on American grasses. Bull. 24. United States Department of Agriculture, p. 41. Small Flora 75. According to Scribner, not uncommon in dry, open lands near the coast from California to Louisiana. This plant has not been recognized by the writer.

PASPALUM BIFIDUM (A. BERTOL) NASH. (*Paspalum racemulosum* Nutt.) (*Panicum Floridanum Trin.*)—Small Flora 77. American Grasses II. 38. Fig. 334. Collected by the writer in parishes of St. Tammany, Tangipahoa, Calcasieu, West Feliciana. Nowhere very abundant.

PASPALUM BOSCIANUM FLUEGGE. (*P. purpurascens* Ell.)—Small Flora 75. Beale 93. Am. Grasses II, 31, Fig. 327. In wet ground probably over the entire State.

PASPALUM BLEPHAROPHYLLUM NASH.—Small Flora 71. Inserted here on the authority of Prof. Small. Plant not recognized by the writer. "Sandy soil, Florida to Louisiana."

PASPALUM ANGUSTIFOLIUM LE CONTE.—Small Flora 74. Inserted here on the authority of Prof. Small. Plant not recognized by the writer. "In sandy fields."

PASPALUM CILIATOFOLIUM MICHX. *Paspalum setaceum* var. *ciliatifolium* Vasey.—Britton & Brown, Illus. Flora I, 167, Fig. 231. Small Flora 72. Beale 91. Fairly common in most parts of the State, especially on borders of cultivated fields.

PASPALUM CONJUGATUM BERGIUS.—Small Flora 77. Beale 89. Very common in the vicinity of New Orleans and also in Baton Rouge. Also collected near Bayou Sara and near Shreveport. Usually in damp places and ditches or under the shade of trees. According to Mohr, adventive from the tropics.

PASPALUM CURTISIANUM STEUD.—Small Flora 77. Am. Grasses II, 33, Fig. 329. In pine, barren swamps between Slidell and Pearl River.

PASPALUM DIFFORME LE CONTE.—Small Flora 75. Am. Grasses I, 35, Fig. 29. In pine barrens near Covington.

PASPALUM DILATATUM POIR. (*Paspalum oratum* Nees.)—Britton & Brown, Illus. Flora I, 107, Fig. 230. Small Flora 77. Beale 92. Am. Grasses I, 37, Fig. 31. Very common over the entire State. In the late summer usually infected with a species of *Fusarium*.

PASPALUM DISTICHUM L.—Britton & Brown, Illus. Flora I, 106, Fig. 229. Small Flora 78. Beale 93. Am. Grasses I, 31, Fig. 25. Very common in ditches in New Orleans. Also noted in Lake Charles, Baton Rouge, Bayou Sara and Shreveport. Probably over the entire State.

PASPALUM DRUMMONDII (FOURN) VASEY.—Small Flora 78. Beale 90. Collected only at Cameron, where it is not uncommon near the beach. Small gives range as Texas and Mexico.

PASPALUM FLORIDANUM MICHX.—Britton & Brown, Illus. Flora I, 108, Fig. 235. Small Flora 76. Beale 96, Fig. 22. Am. Grasses I, 36, Fig. 30. Common everywhere *except* in the swamps.

PASPALUM HALLII (VASEY & SCRIBNER).—Small Flora 75. Plant not known by the writer. Inserted here on the authority of Prof. Small. "Moist soil, Louisiana and Texas."

PASPALUM LAEVE MICHX.—Small Flora 74. Am. Grasses I, 33, Fig. 27. Not uncommon in cultivated ground in vicinity of New Orleans.

PASPALUM LIVIDUM TRIN.—Small Flora 76. Beale 93. Am. Grasses II, 34, Fig. 330. Collected only at Cameron in the summers of 1903 and 1906. All the quoted authorities limit its range to Texas and Mexico.

PASPALUM LONGIPEDUNCULATUM LE CONTE. (*Paspalum Debile Michx.*) (*Paspalum arenarium Schrad.*)—Britton & Brown, Illus. Flora I, 108, Fig. 233. Small Flora 72. Beale 91. Collected by the writer only at Cameron, near the sea beach. According to Small, found in rocky or sandy soil, Georgia and Florida.

PASPALUM MEMBRANACEUM WALT. (*Paspalum vaginatum Ell.*) (*P. Walterianum Schutt.*)—Britton & Brown, Illus. Flora I, 106, Fig. 228. Small Flora 71. Beale 86. Am. Grasses II, 30, Fig. 326. Both in wet and dry soil in vicinity of New Orleans and Shreveport.

PASPALUM MUCRONATUM MUHL. (*P. FLUITANS KUNTH.*)—Britton & Brown, Illus. Flora I, 106, Fig. 227. Small Flora 71. Beale 86. Am. Grasses II, 29, Fig. 325. Almost everywhere in Louisiana where there is stagnant water course. Frequently choking up bayous and canals.

PASPALUM PLICATULUM MICHX. (*Paspalum undulatum Poir.*)—Small Flora 75. Beale 90. Am. Grasses I, 34, Fig. 28. Common on the pine barrens near Covington and Mandeville.

PASPALUM PRAECOX WALT. (*Paspalum lentiferum Lam.*)—Small Flora 76. Beale 95. In wet pine barrens near Covington.

PASPALUM SETACEUM MICHX.—Small Flora 73. Beale 91. In dry soil, Tangipahoa and near Alexandria.

PASPALUM STRAMINCUM NASH.—Small Flora 72. Collected by writer only in Cameron parish. Small gives range as Kansas, Nebraska and Indian Territory. So that it seems somewhat of an anomaly in Louisiana.

PASPALUM VASEYANUM SCRIB. (*Paspalum Larranyagai Arech.*) *P. Virgatum pubiflorum Vasey.*—Small Flora 77. Beale 88. Am. Grasses II, 32, Fig. 328. Very common all over Louisiana.

PASPALUM VIRGATUM L.—Plant not known by the writer. Inserted here on the authority of Dr. Mohr, Flora of Alabama, 343, who says that it is an adventive from the tropics and is naturalized in Louisiana.

PASPALUM VAGINATUM SW.—Small Flora 78. Beale 94. Collected by the writer on the banks of the Cameron River near the mouth, where it is very abundant.

ANASTROPHUS SCHLECHT.

ANASTROPHUS PLATYCAULUS (POIR) NASH. (*Paspalum platycaulon* Poir.) (*Milium compressum* (Sw.) Nees.)—Small Flora 78. Beale 85. Am. Grasses I, 30, Fig. 24.

ANASTROPHUS COMPRESSUM (SW.) SCHLECHT.—A number of specimens were sent to the writer from Pecan Island which correspond closely with Small's description and are so named "*cum dubio*."

ANASTROPHUS PASPALOIDES (MICHX) NASH. PASPALUM PASPALOIDES (MICHX) SCRIBNER.—Small Flora 78. Beale 85. Am. Grasses I, 29, Fig. 23. In vicinity of New Orleans and also dry sandy soil in Rapides Parish. Not very common. Mrs. Agnes Chase informs me that the generic name *Anastrophus* is not tenable. *Axonopus* is an older name for this group and in Rhodora 8:205, 1906, the combination *Axonopus furcatus* (Flugge) Hitch. is made. This name is the one used in the new Gray's Manual.

ANTHAENANTIA BEAUV. AGROST. 48. 1812

ANTHAENANTIA VILLOSA (MICHX) BEAUV. (*Phalaris villosa* (Michx). *Aulacanthus ciliatus* Ell.)—Small Flora 79. Beale 98, Fig. 23. Am. Grasses II, 41, Fig. 337. A common grass, both in dry woods and in the open pine barrens all over the State.

ANTHAENANTIA RUFA (ELL.) BENTH. (*Aulacanthus rufus* Ell.) (*Panicum rufum* Kunth.)—Small Flora 79. Beale 97. Am. Grasses II, 40, Fig. 336. Not so common as preceding, but not infrequent, especially in partially cleared dry woods. St. Tammany, Tangipahoa, Calcasieu. Rapides.

ANTHAENANTIA RUFA SCABRA NASH.—Small Flora 79. This form has several times been collected by the writer, especially in parish of Tangipahoa.

ERIOCHLOA H. B. K. NOV. GEN. ET. SP. 1: 94. 1815

ERIOCHLOA LONGIFOLIA VASEY.—Small Flora 80. Beale 102. On the sea beach at Cameron. Apparently rare.

ERIOCHLOA PUNCTATA (L.) W. HAMIL. (*Milium punctatum* L.) (*Helopus pilosus* Trin.) (*Helopus punctatus* Nees.)—Britton & Brown, Illus. Flora I, 110, Fig. 239. Small Flora

80. Beale 103. Am. Grasses I, 41, Fig. 35. Much more abundant than the preceding, but as yet Cameron on the beach is the only station in Louisiana. None of the older botanists in Louisiana refer to it.

SYNTHERISMA WALT. FL. CAR. 76. 1788

SYNTHERISMA FILIFORME (L.) NASH. (*Panicum filiforme* L.) (*Digitaria filliformis* Muhl.)—Britton & Brown, Illus. Flora I, 11, Fig. 242. Small Flora 51. Beale 1009. Found occasionally in sandy soil over the whole State.

SYNTHERISMA HUMIFUSUM (PERS.) RYDH. (S. LINEARE (KROCK) (NASH.) (PANICUM LINEARE KROCK.)—Britton & Brown, Illus. Flora I, 111, Fig. 241. Small Flora 82. Beale 110. Am. Grasses I, 37, Fig. 43. Common in cultivated ground everywhere.

SYNTHERISMA HUMIFUSUM MISSISSIPPIENSE.—This variety is not uncommon, in the same situations as the above type.

SYNTHERISMA SANGUINALE (L.) NASH. (*Panicum sanguinale* L.)—Britton & Brown, Illus. Flora I, 111, Fig. 240. Small Flora 83. Beale 110. Am. Grasses II, 43, Fig. 339. A common weed everywhere.

SYNTHERISMA SEROTINUM WALT. (*Digitaria serotina* Michx.)—Small Flora 82. Beale 111. Am. Grasses I, 44, Fig. 38. By the sides of roads and in fields all over the State.

ECHINOCHLOA BEAUV.

ECHINOCHLOA COLONA (L.) LINK. (*Panicum colonum* L.)—Small Flora 84. Beale 118. Am. Grasses I, 69, Fig. 63. A very common weed throughout the State, usually in ditches.

ECHINOCHLOA CRUS-GALLI (L.) BEAUV. (*Panicum Crus-galli* L.)—Britton & Brown, Illus. Flora I, 113, Fig. 243. Small Flora 84. Beale 119. Am. Grasses I, 70, Fig. 64. Common over the whole State in cultivated ground.

ECHINOCHLOA LONGEARISTA NASH.—Small Flora 84. Plant not known to writer. Inserted here on authority of Prof. Small. "In wet ground, South Carolina to Louisiana."

ECHINOCHLOA WALTERI (PURSH) NASH. *Panicum hirtellum* Walt. *P. hispidum* Muhl.—Britton & Brown, Illus. Flora I, 113, Fig. 244. Small Flora 84. Beale 119. In swamps near Shell Beach.

OPLISMENUS BEAUV. AGROST. 53. 1812

OPLISMENUS SETARIUS (LAM.) ROEM & SCHUTT. (*Panicum setarium* Lam.) (*P. hirtellum* Michx.)—Small Flora 84. Beale 147, Fig. 27. Am. Grasses II, 104, Fig. 400. Fairly common over the whole State.

PANICUM L. SP. PL. 1: 55. 1753

PANICUM AGROSTOIDES MUHL.—Britton & Brown, Illus. Flora I, 115, Fig. 250. Beale 128. Small Flora 93. Common over the State.

PANICUM STIPITATUM NASH. (*P. elongatum* Pursh.)—Small Flora 94. Am. Grasses II, 56, Fig. 352. Collected by the writer on Calcasieu prairies and in Cameron parish. No doubt occurs elsewhere in the State.

PANICUM ALBOMARGINATUM NASH.—Small Flora 98. Am. Grasses II, 63, Fig. 359. Common in the pine barrens in the vicinity of Abita Springs and Pearl River.

PANICUM AMARUM ELL.—Britton & Brown, Illus. Flora I, 122, Fig. 271. Small Flora 93. Beale 124. Am. Grasses I, 61, Fig. 55. In sands along the sea beach, Grand Isle.

PANICUM AUTUMALE BOSC. (*Panicum cognatum* Schutt.) (*Panicum divergens* Muhl.)—Britton & Brown, Illus. Flora I, 124, Fig. 276. Small Flora 92. Beale 122. Am. Grasses II, 51, Fig. 347. In dry sandy soil in cultivated fields. Observed by the writer only near Osyka on the borders of Louisiana and Mississippi.

PANICUM ANGUSTIFOLIUM ELL. (*Panicum consanguineum* S. Wats.)—Britton & Brown, Illus. Flora 122, Fig. 169. Small Flora 95. Beale 141. Am. Grasses II, 94, Fig. 390. Common in dry soil, especially in the more rolling parts of the State. Collected in Tangipahoa, St. Tammany, Calcasieu, Rapides.

PANICUM ARENICOLOIDES ASHE.—Small Flora, page 95, makes this species a synonym of *P. angustifolium* Elli. The habit of *P. arenicoloides* is, however, very distinct. It grows in round-

ish clumps radiating out from a center, more or less prostrate. Mrs. Chase informs me that a further difference is apparent in the autumnal state of *P. angustifolium*, which has leaves flat, while in *arenicoloides* they are involute. Partially cleared woods in the more upland portions of the State. Ruston and West Feliciana.

PANICUM BARBULATUM MICHX.—Britton & Brown, Illus. Flora I, 120, Fig. 265. Small Flora 96. Am. Grasses I, 65, Fig. 59. On borders of swamps near Orleans and probably over the entire State.

PANICUM CAPILLARE L.—Britton & Brown, Illus. Flora I, 123, Fig. 32. Small Flora 92. Beale 129. Am. Grasses II, 54, Fig. 350. A very common weed in ditches along the streets and in waste fields and empty lots, New Orleans.

PANICUM CILIATUM ELL.—Small Flora 94. Only one specimen, collected in sandy soil near Amite City.

PANICUM CLANDESTINUM L.—Britton & Brown, Illus. Flora I, 118, Fig. 257. Small Flora 103. Beale 144. Am. Grasses II, 92, Fig. 388. On the edge of swamps near New Orleans.

PANICUM COGNATUM SCHULTES.—Small Flora 92. Am. Grasses II, 51, Fig. 347. In sandy soil, Tangipahoa.

PANICUM COMMUTATUM SCHULTES.—Britton & Brown, Illus. Flora I, 117, Fig. 255. Small Flora 103. Beale 141. On the edges of woods near New Orleans. Also near Alexandria.

PANICUM CONSANGUINEUM KUNTH.—Small Flora 95. Beale 141. In cleared pine barrens St. Tammany.

PANICUM CURTIFOLIUM NASH.—Small Flora 97. In Sandy soil on borders of Louisiana and Mississippi, near Osyka.

PANICUM DEPAUPERATUM MUHL. (*Panicum strictum* Pursh.) (*Panicum involutum* Torr.)—Britton & Brown, Illus. Flora I, 121, Fig. 268. Small Flora 94. Beale 140. Am. Grasses II, 89, Fig. 385. Common in most parts of the State except in the alluvial swamp regions. Rapides, Tangipahoa, West Feliciana, St. Tammany.

PANICUM DICHOTOMUM L. (*Panicum ramulosum* Michx.) Britton & Brown, Illus. Flora I, Fig. 264. Small Flora 96. Beale 138. Am. Grasses II, 70, Fig. 366. Apparently very common in all the upland part of the State. It varies very much in appearance at different times of the year.

PANICUM DIGITARIOIDES CARPENTER. *P. Curtisii* Chap. *P. carinatum* Torr.—Britton & Brown, Illus. Flora I, 114, Fig. 245. Small Flora 91. Beale 115. Growing in shallow water near Slidell and also near Lake Charles.

PANICUM GIBBUM ELL.—Britton & Brown, Illus. Flora I, 125, Fig. 279. Small Flora 105. Beale 126. Am. Grasses I, 53, Fig. 47. In swamps and water almost over the entire State. Collected by the writer, New Orleans, Lake Charles, Baton Rouge, Shreveport.

PANICUM GYMNOCARPON ELL.—Small Flora 104. Beale 123. Am. Grasses II, 58, Fig. 354. Very common in ditches in the vicinity of New Orleans and on the edges of swamps in most parts of the State.

PANICUM HELLERI NASH.—Small Flora 102. This plant has not been seen by the writer and is inserted here on the authority of Prof. S. M. Tracy, who collected it at Cameron in the summer of 1903. Prof. Small gives its distribution as "stony wooded hillsides Southern Texas."

PANICUM HIANIS ELL. (*Panicum divaricatum* Michx.) (*Panicum melicarium* Michx.)—Britton & Brown, Illus. Flora I, 112, Fig. 247. Small Flora 105. Beale 127. Am. Grasses I, 54, Fig. 48. Very common in Louisiana, both on the edges of swamps and in the dry pine barrens. Observed in neighborhood of New Orleans, Mandeville, Covington, Lake Charles, Bayou Sara, Shreveport.

PANICUM INFLATUM SCRIB. & SMITH. (*Panicum Mississippense* Ashe.—Small Flora 100. Not uncommon on the prairies of Calcasieu. According to Small, found "in sandy soil, Mississippi."

PANICUM INSULARE (L.) MEYER. (*P. leucophacum* H. B. K.)—Small Flora 83. Collected once or twice near New Orleans on the levees of the Mississippi.

PANICUM JOORII VASEY.—Small Flora 103. Collected by the writer in the vicinity of Baton Rouge and also in West Feliciana near the borders of Mississippi.

PANICUM LAXIFLORUM LAM.—Britton & Brown, Illus. Flora I, 119, Fig. 262. Small Flora 95. Beale 139. Am. Grasses II, 82, Fig. 378. Collected by the writer in the vicinity of Baton Rouge, also near Bayou Sara and Shreveport.

PANICUM LAXIFLORUM STRICTIRANEUM.—Hitchcock & Chase N. Subsp. This specimen was collected last summer near Bayou Sara, in West Feliciana, growing in rich woods. In this neighborhood it seemed to be abundant. One or two specimens were observed about twenty miles north of Shreveport.

PANICUM LEUCOTHRIX NASH.—Small Flora 99. Am. Grasses 11, 64, Fig. 360. This species is abundant in the pine barrens between Slidell and Covington, appearing early in the spring.

PANICUM LINDHEIMERI NASH.—Small Flora 100. This is another species of the pine barrens, very abundant in the spring and dieing down in midsummer. Usually abundant near Abita Springs and Covington. Small gives distribution as Georgia to Texas and Indian Territory.

PANICUM MANATENSE NASH.—Small Flora 102. Am. Grasses II, 87, Fig. 383. This species is also found in the territory between Slidell and Covington, and in Calcasieu Parish, near Lake Charles. Small gives distribution as "hammock land southern peninsula Florida." Scribner gives Florida and Georgia to Louisiana.

PANICUM MERILIONALE ASHE (*P. fillmiculme Ashe.*)—Small Flora 100. Collected by the writer near Slidell and near Lake Charles in dry, sandy soil.

PANICUM MICROCARPON MUHL. *P. polyanthes Schult.*—Britton & Brown, Illus. Flora I, 116, Fig. 253. Small Flora 100. Beale 137. Am. Grasses II, 69, Fig. 365. Scattered over the entire State.

PANICUM MILIACEUM L.—Britton & Brown, Illus. Flora I, 123, Fig. 273. Small Flora 92. Beale 125. Inserted here on the authority of Rev. A. B. Langlois, *Catalogue Provisoire de Plantis de la Basse-Louisianne*, published 1887 in France. No locality given.

PANICUM NEURANTHUM GRISEB.—Britton & Brown, Illus. Flora III, 501, Fig. 269a. Small Flora 95. Beale 135. In dry, partly cleared woods, near Amite City, and also near Covington.

PANICUM NITIDUM LAM.—Britton & Brown, Illus. Flora I, 120, Fig. 263. Small Flora 99. Beale 139. Am. Grasses II, 75, Fig. 371. In the prairies of Calcasieu and also in St. Tammany.

Panicum octonodum SCRIBN. & SMITH.—Small Flora 98. Am. Grasses II, 73, Fig. 369. On the borders of swamps near Covington, also near Lake Charles.

Panicum orangense ASHE.—Journ. Elisha Mitch. Sci. Soc., 15-113. Mrs. Chase says that this may be the same as *P. ciliosum* Nash. Open prairies Calcasieu and near Biologic Station.

Panicum ovale ELLIS.—Small Flora 102. Am. Grasses II, 102, Fig. 398. Dry pine barrens near Mandeville.

Panicum paspaloides PERS.—Small Flora 90. Beale 119. Am. Grasses I, 47, Fig. 41. Not uncommon growing in shallow ponds in Cameron near the beach. Not seen elsewhere.

Panicum platyphyllum MONRO.—Small Flora 80. Beale 112. Am. Grasses II, 44, Fig. 340. Not common in any one place, but found occasionally in all parts of the State. More common in the southern than the northern part of the State.

Panicum porterianum NASH (*Panicum latifolium* Walt.), (*Panicum Walteri* Poir.)—Britton & Brown, Illus. Flora I, 117, Fig. 254. Small Flora 104. Beale 145. Am. Grasses II, 100, Fig. 396. Common everywhere, especially in dry, partly cleared woods.

Panicum proliferum LAM. (*Panicum geniculatum* Muhl.)—Britton & Brown, Illus. Flora I, 123, Fig. 273. Small Flora 92. Beale 129. Am. Grasses I, 57, Fig. 51. Common everywhere in ditches and wet places.

Panicum prostratum LAM.—Small Flora 90. Beale 115. Am. Grasses II, 45, Fig. 341. Very common in cultivated ground in the southern part of Louisiana, especially in vicinity of New Orleans.

Panicum pseudanceps NASH.—Small Flora 94. This species is abundant on the edges of shallow ponds, especially in neighborhood of Slidell and Pearl River. This appears to be the first record from Louisiana; as Small gives for its distribution "low pine lands peninsular Florida, summer and fall." In Louisiana it should be "spring and summer," for usually by fall it is nearly dead.

Panicum pubescens LAM. (*Panicum scorparium* Lam.), (*Panicum lanuginosum* Ell.)—Britton & Brown, Illus. Flora I, 121, Fig. 267. Small Flora 99. Am. Grasses II, 90, Fig. 386. Not uncommon in dry soil. St. Tammany and Tangipahoa.

PANICUM PYRIFORME NASH.—Small Flora 95. Occurring in the neighborhood of New Orleans and in dry woods near Covington. Apparently first record for Louisiana, as Small gives distribution “clay or sandy soil peninsular Florida.”

PANICUM ROANOKENSE ASHE.—Small Flora 95. One of the first spring grasses in the vicinity of Slidell and Pearl River. According to Small previously recorded only from “North Carolina, summer.”

PANICUM ANCEPS MICHX. (*Panicum rostratum* Muhl.)—Britton & Brown, Illus. Flora I, 115, Fig. 248. Small Flora 94. Beale 128. Am. Grasses I, 59, Fig. 53. Very common, distributed over the entire State.

PANICUM ANCEPS PUBESCENS VASEY.—Collected in Parishes of Cameron and Calcasieu.

PANICUM RAVENELLI SCRIB. AND MERRILL (*Panicum scoparium* Ell.)—Small flora 104. This plant is not known to the writer, but is inserted here on the authority of Prof. Small, who gives as its distribution “District of Columbia to Florida and Louisiana, summer.”

PANICUM SCABRINSCULUM ELL.—Small Flora 102. Am. Grasses II, 91, Fig. 387. This is a grass collected by Dr. Joor in St. Tammany Parish and determined by Vasey. It has not been collected by the writer.

PANICUM SPHAEROCARPON ELL.—Britton & Brown, Illus. Flora 116, Fig. 252. Small Flora 100. Beale 137. A very common species occurring over the entire State.

PANICUM STENODES GRISEB. (*Panicum anceps strictum* Chap.)—Beale 126. Am. Grasses I, 52, Fig. 46. A species not uncommon in the long leaf pine barrens near Mandeville and Covington.

PANICUM UNCIPHYLLUM TRIN. (*Panicum pubescens* A. Gray.)—Small Flora 100. This plant was noticed by the writer in his “Flora of the Gulf Biologic Station.” It has been collected by him in Calcasieu Parish and in the extreme north of the State, near Ruston. It no doubt can be found elsewhere in the State. Small reports it from “Maine and Quebec to British Columbia, Georgia, the Indian Territory and Arizona.”

PANICUM VERRUCOSUM MUHL. (*Panicum debile* Ell.)—Britton & Brown, Illus. Flora I, 125, Fig. 278. Small Flora 91. Beale 135. Am. Grasses I, 55, Fig. 49. Common all over the State in wet places, especially on the edges of woods.

PANICUM VIRGATUM L.—Britton & Brown, Illus. Flora I, 122, Fig. 270. Small Flora 93. Beale 121. Am. Grasses I, 60, Fig. 54. A very conspicuous species in the pine barrens on the edges of ponds, also on the borders of swamps. Distributed all over the State.

PANICUM VISCIDUM ELL. (*Panicum scoparium* Michx.)—Britton & Brown, Illus. Flora I, 121, Fig. 266. Small Flora 102. Beale 143. In gravelly soil near springs. St. Tammany and Tangipahoa.

PANICUM ALBEMARLENSE ASHE. (*Panicum filmiculme* Ashe.)—Small Flora 99. This species has been collected by writer in West Feliciana and near Shreveport. Seems to be the first record from this State, as Small gives distribution as New Jersey to Georgia.

PANICUM SETACEUM MUHL.—Mrs. Chase writes that this species is the *P. neuranthum* of Small's Flora, not Griseb—*P. filirameum* Ashe. Dry, sandy soil, near Shreveport.

PANICUM GRAVIUS H. & C.—Mrs. Chase writes me that this species is the true *P. barbuiatum* Michx., not the *P. barbuiatum* of the manuals with Spikelets 1.5 mm. long. Rhodora Vol. 8, No. 95, November, 1906. Collected in vicinity of Shreveport on dry hillsides and in the same situations near Bayou Sara.

CHAETOCHLOA SCRIB. AGROST. 4:39. 1897. CHAMAERAPHIS KUNTZE REV. GEN., PL. 2, 767. 1891.

IXOPHORUS NASH. BULL. TORR. CLUB., 22:422.

1895. SETARIA BEAUV. AGROST. 113. 1812.

CHAETOCHLOA BREVISPICA S. & M. (*Cenchrus parviflorus* Poir), (PANICUM VERTICILLATUM PARVIFLORUM DOEL.).—In-Poir), (*Panicum verticillatum parviflorum* Doel.).—Inserted here on the authority of Dr. Mohr, "Plant Life in Alabama," page 360. Apparently not included in any of the manuals. According to Mohr, found in Louisiana and near Mobile.

CHAETOCHELOA GLAUCA (L.) SCRIB. (*Setaria glauca* Beauv.)—Britton and Brown, Illus. Flora I, 126, 2. Small Flora 106. Beale 155. Am. Grasses II, 105, Fig. 401. A common weed everywhere.

CHAETOCHELOA IMBERBIS (Poir) SCRIB. *Setaria perennis* Hall.—Small Flora 106. Beale 157. Noted by the writer only in Cameron Parish, near the Gulf Biologic Station.

CHAETOCHELOA ITALICA (L.) SCRIBN. Small Flora 107. Britton & Brown, Illus. Flora I, 127, Fig. 283. Beale 154. Am. Grasses I, 74, Fig. 68. Inserted here on the authority of Rev. A. B. Langlois, *Catalogue Provisoire*, 1887. Plant not observed by the writer.

CHAETOCHELOA MAGNA (GRISEB) SCRIBN. (*Setaria magna* Griseb.)—Small Flora 107. Beale 152. Am. Grasses II, 106, Fig. 402. The most striking and handsome of all the native species of grasses in Louisiana. Very abundant everywhere on the edges of swamps or in shallow water.

CHAETOCHELOA PERENNIS (CURTIS) BICKNELL. *C. versicolor* Bicknell.—Inserted here on the authority of Dr. Mohr, "Plant Life of Alabama," page 359. Small Flora 106. According to Mohr. "saline marshes along the coast from Southern New England to Southern Florida, Mississippi and Louisiana. Plant not known to the writer.

CHAETOCHELOA VERTICILLATA (L.) SCRIBN. (*Setaria verticillata* Beauv.)—Britton & Brown, Illus. Flora I, 120, Fig. 280. Small Flora 107. Beale 151. Am. Grasses II, 107, Fig. 403. Occasional as a weed in vicinity of New Orleans.

CHAETOCHELOA VIRIDIS (L.) SCRIBN. (*Setaria viridis* Beauv.)—Britton & Brown, Illus. Flora I, 126, Fig. 3. Small Flora, 107. Beale 157. Am. Grasses I, 71, Fig. 65. Occasional as a weed in and around New Orleans.

CHAETOCHELOA CORRUGATA PARVIFLORA (POIR) SCRIBN. & MER.—Small Flora 107. Collected by Prof. S. M. Tracy at Port Eads. Bull. Torr. Bot. Club, Vol. 28, No. 2.

CHAETOCHELOA GRACILIS (H. B. K.) SCRIBN. & MER.—Collected by Prof. S. M. Tracy at Port Eads. Bull. Torr. Bot. Club, Vol. 28, No. 2.

CENCHRUS L. SP., PL. 2. 1050. 1753

CENCHRUS INCERTUS M. A. CURTIS.—Small Flora 109. Beale 160. Am. Grasses II, 109, Fig. 405. Along the seashore in loose sand.

CENCHRUS MACROCEPHALUS (DOELL) SCRIBN.—Small Flora 109. Am. Grasses II, 110, Fig. 406. In sand along the seashore. Less common than the above.

CENCHRUS TRIBULOIDES L.—Britton & Brown, Illus. Flora I, 127, Fig. 284. Small Flora 108. Am. Grasses I, 75, Fig. 69. A very common and pernicious weed everywhere along the sandy coast.

CENCHRUS MYOSUROIDES H. B. K.—Small Flora 109. Am. Grasses I, 76, Fig. 70. Inserted here on the authority of Rev. A. B. Langlois, *Catalogue Provisoire de la Basse-Louisiana*, 1887.

STENOTAPHRUM TRIN. FUND. AGROST. 175. 1820

STENOTAPHRUM SECUNDUM (WALT.) KUNTZE. (*Stenotaphrum Americanum Schrank.*)—Small Flora 110. Beale 167. Am. Grasses I, 78, Fig. 72. Very common in vicinity of New Orleans, especially near the borders of Lake Pontchartrain.

HYDROCHLOA BEAUV. AGROST., 165. 1812

HYDROCHLOA FLUITANS (MICHX) NASH. (*H. Caroliniensis Beaux.*)—Small Flora 111. Beale 170. Very common in ponds in the pine barrens and also in ponds along the Mississippi River, New Orleans.

LUZIOLOA JUSS. GEN., PL. 33. 1789

LUZIFLA PERUVIANA A. F. GMEL.—Small Flora 111. Beale 172. Not uncommon in ponds in vicinity of New Orleans.

ZIZANIA L. SP., PL. 2:991. 1753

ZIZANIA AQUATICA L.—Britton & Brown, Illus. Flora I, 128, Fig. 286. Small Flora 112. Beale 173. Am. Grasses II, 113, Fig. 409. Common over the State in swamps and on the edges of bayous.

ZIZANIOPSIS DOELL. & ALSCHERS.

ZIZANIOPSIS MILIACEA (MICHX) DOELL & ALSCHERS. Britton & Brown, Illus. Flora I, 128, Fig. 285. Small Flora 112. Am. Grasses II, 112, Fig. 408. With the preceding, but much more abundant.

HOMALOCENCHRUS MIEG. 1768. LEERSIA SW. NOV.
GEN. 21. 1782

HOMALOCENCHRUS VIRGINICUS (WILD) BRITTON (*Leersia Virginica* Wild).—Britton & Brown, Illus. Flora I, 129, Fig. 287. Small Flora 113. Beale 178. Am. Grasses I, 83, Fig. 77. Common everywhere throughout the State.

HOMALOCENCHRUS HEXANDRUS (R. & S.) BRITTON. (*Leersia hexandra* Sw.)—Small Flora 113. Beale 179. Am. Grasses I, 81, Fig. 75. A very common species in the neighborhood of ponds and along the edges of woods, Calcasieu.

HOMALOCENCHRUS LENTICULARIS (MICHX) SCRIBN. (*Leersia lenticularis* Michx.)—Britton & Brown, Illus. Flora I, 129, Fig. 289. Small Flora 113. Beale 179. Am. Grasses I, 80, Fig. 74. The commonest species of the genus in swamps and along bayous near New Orleans.

HOMALOCENCHRUS ORYZOIDES (L.) POLL. (*Leersia oryzoides* Sw.)—Britton & Brown, Illus. Flora I, 129, Fig. 288. Small Flora 113. Beale 178, Fig. 37. Am. Grasses I, 82, Fig. 76. In swamps over the State; not very common.

ORYZA L. SP. PL. I. 333. 1753

ORYZA SATIVA L.—Frequently escaped and growing wild in all the rice portion of the State.

PHALARIS L. SP. PL. 1:55. 1753

PHALARIS ANGUSTA NEES.—Small Flora 113. Am. Grasses I, 87, Fig. 81. Not uncommon in cleared swampy ground in vicinity of New Orleans.

PHALARIS CANARIENSES L.—Britton & Brown, Illus. Flora I, 131, Fig. 292. Small Flora 113. Beale 182. Very abundant in the swamps around New Orleans.

PHALARIS CAROLINIANA WALT. (*P. intermedia* Bosc.)—Britton & Brown, Illus. Flora I, 130, Fig. 291. Small Flora 113. Am. Grasses I, 86-80. With the preceding, but not so common.

ARISTIDA L. SP. PL. 82. 1753.

ARISTIDA DICHOTOMA MICHX.—Britton & Brown, Illus. Flora I, 133, Fig. 297. Small Flora 115. Beale 208. Am. Grasses II, 118, Fig. 414. A common species in sandy, dry soil over the entire State.

ARISTIDA GRACILIS ELL.—Britton & Brown, Illus. Flora I, 133, Fig. 298. Small Flora 118. Beale 209. Not uncommon in the dry pine barrens, St. Tammany and Tangipahoa.

ARISTIDA LANOSA MUHL. (*A. lanata* Poir.)—Britton & Brown, Illus. Flora I, 135, Fig. 302. Small Flora 118. Beale 203. Am. Grasses I, 93, Fig. 87. Same situations as former. Common.

ARISTIDA OLIGANTHA MICHX.—Britton & Brown, Illus. Flora I, 135, Fig. 303. Small Flora 117. Beale 202. Am. Grasses II, 122, Fig. 418. In dry, sandy soil. Collected in Rapides Parish.

ARISTIDA PALUSTRIS VASEY.—Small Flora 118. Beale 206. Am. Grasses I, 92, Fig. 86. In the prairies of Calcasieu and in Cameron Parish, near the sea.

ARISTIDA PURPURASCENS POIR.—Britton & Brown, Illus. Flora I, 134, Fig. 301. Small Flora 118. Beale 201. Common in the dry pine barrens near Mandeville and Covington.

ARISTIDA PURPUREA NUTT.—Britton & Brown, Illus. Flora I, 135, Fig. 304. Small Flora 117. Beale 206. Plant not seen by the writer. Inserted here on the authority of Prof. Small, who gives distribution as "sandy soil, Arkansas and Louisiana to New Mexico."

ARISTIDA STRICTA MICHX.—Small Flora 117. Beale 204. Am. Grasses I, 91, Fig. 85. Dry pine barrens of St. Tammany and Tangipahoa.

ARISTIDA VIRGATA TRIN.—Beale 202. This species is included with some doubt. It seems, however, to correspond with description of *A. Virgata* in Beale. Dry pine barrens near Covington.

STIPA L. SP. PL. 1:78.

1753

STIPA AVENACEA L. (*Stipa barbata Michx*).—Britton & Brown, Illus. Flora I, 138, Fig. 311. Small Flora 120. Beale 218. Am. Grasses I, 127, Fig. 423. In dry woods of the more hilly parts of the State. West Feliciana and near Ruston.

MUHLENBERGIA SCHREB. GEN. 44.

1789.

MUHLENBERGIA CAPILLARIS (LAM.) TRIN.—Britton & Brown, Illus. Flora I, 145, Fig. 329. Small Flora 121. Beale 256. Am. Grasses II, 152, Fig. 448. In dry sandy soil. Tangipahoa.

MUHLENBERGIA DIFFUSA SCHREB.—Britton & Brown, Illus. Flora I, 145, Fig. 329. Small Flora 121. Beale 245. Am. Grasses I, 105, Fig. 99. Not uncommon and distributed all over the State, usually in shady places and banks of rivers. Sometimes as in the vicinity of Baton Rouge in dry cultivated fields.

MUHLENBERGIA TENUIFLORA (WILLD.) B. S. P. (*M. Wildevonii Trin.*)—Britton & Brown, Illus. Flora I, 144, Fig. 326. Small Flora 121. Beale 255. Am. Grasses II, 147, Fig. 443. In dry woods collected only on the borders of Louisiana and Mississippi, near Osyka.

BRACHYELYTRUM BEAUV. AGROST. 39.

1812.

BRACHYELYTRUM ERECTUM (SCHREB.) BEAUV. (*B. aristatum Roem & Schutt*).—Britton & Brown, Illus. Flora I, 146, Fig. 332. Small Flora 122. Beale 269, Fig. 46. Am. Grasses I, 118, Fig. 112. Collected near Alexandria. This grass was also collected many years ago in Louisiana by Hale Carpenter & Riddell, somewhere in "West Louisiana." Small gives range as Newfoundland and Ontario to Minnesota, Georgia and Texas. Mohr includes in the southern range Alabama, Mississippi and Arkansas. Beale says "Florida and northward." With Louisiana added to the list the grass seems to occur in all the Southern States.

PHLEUM L. SP. PL. I, 59.

1753

PHLEUM PRATENSE L.—Britton & Brown, Illus. Flora I, 147, Fig. 334. Small Flora 122. Beale 276. Am. Grasses I, 120, Fig. 114. Inserted here on the authority of Rev. A. B.

Langlois. *Catalogue Provisoire de la Basse-Louisianne*. This species has never been seen in Louisiana by the writer, either wild or cultivated.

ALOPECURUS L. SP. PL. 60.

1753

ALOPECURUS GENICULATUS L.—Britton & Brown, *Illus. Flora I*, 148, Fig. 337. *Small Flora*, 122. Beale 280. *Am. Grasses I*, 121, Fig. 115. Very common everywhere, especially in the vicinity of New Orleans, on the levee banks of the Mississippi River.

SPOROBOLUS R. BR. FL. N. HOLL. 1:169.

1810

SPOROBOLUS ARGUTUS (NEES) KUNTH.—Britton & Brown, *Illus. Flora I*, 154, Fig. 350. *Small Flora* 124. Beale 301. *Am. Grasses I*, 134, Fig. 128. Only once collected by the writer near Lake Charles.

SPOROBOLUS ASPER (MICHX) KUNTH.—Britton & Brown, *Illus. Flora I*, 151, Fig. 341. *Small Flora* 123. Beale 287. *Am. Grasses I*, 125, Fig. 119. Common in poor sandy soil and on the edges of cleared woods in most parts of the State, except the sugar alluvial regions.

SPOROBOLUS INDICUS (L.) R. BR.—Britton & Brown, *Illus. Flora I*, 154, Fig. 349. *Small Flora* 124. Beale 296. *Am. Grasses I*, 132, Fig. 126. A common weed over the entire State.

SPOROBOLUS DRUMMONDII (TRIN.) VASEY.—*Small Flora* 123. Inserted here on the authority of Prof. Small. Species not known by the writer. According to Small, "dry soil, Louisiana and Texas."

SPOROBOLUS JUNCUS (MICHX) KUNTH.—Britton & Brown, *Illus. Flora I*, 154, Fig. 351. *Small Flora* 124. Beale 290. *Am. Grasses II*, 159, Fig. 455. Common in dry sandy soil over the entire State.

SPOROBOLUS VAGINAEFLORUS (TORR) WOOD. (*S. minor Vasey*).—Britton & Brown, *Illus. Flora I*, 152, Fig. 344. *Small Flora* 123. Beale 293. *Am. Grasses II*, 170, Fig. 466. In waste cultivated ground in most parts of the State, but not very abundant anywhere.

SPOROBOLUS VIRGINICUS (L.) KUNTH.—Britton & Brown, Illus. Flora I, 153, Fig. 348. Small Flora 125. Beale 302. Am. Grasses II, 174, Fig. 470. Growing very abundantly at the mouth of the Cameron River, but not seen elsewhere by the writer.

LIMNODEA, L. H. DEWEY IN COULTER CONTRIB. TO
NAT. HERB., 2:518 1894

LIMNODEA ARKANSANA (NUTT) (*Thuberia Arkansana Benth*).—Small Flora 69. Beale 315, Fig. 55. Am. Grasses I, 139, Fig. 133. Collected only once by the writer near Shreveport. There are, however, a number of specimens in the Tulane Herbarium labeled "West Louisiana, Riddell."

LIMNODEA ARKANSANA PILOSA TRIN.—Inserted here on the authority of Prof. Small. Flora, page 69, who says that this form occurs in Louisiana and Texas.

POLYPOGON DESF. FL. ATL. 1:66. 1798

POLYPOGON MARITIMUS WILLD. (*Alopecurus maritimus Poir*).—Beale 313. Inserted here on the authority of Rev. A. B. Langlois, *Catalogue Provisoire de Plantis de la Basse-Louisianne*, 1887.

POLYPOGON MONSPELIENSIS (L.) DESF. (*Alopecurus monspeliensis L.*)—Britton & Brown, Illus. Flora I, 157, Fig. 358. Small Flora 125. Beale 312. Am. Grasses I, 138, Fig. 132. Near Lake Borgne. Only once collected by writer. Reported by Langlois from Pointe a la Hache.

POLYPOGON LITTORALIS SM.—Small Flora 125. Beale 314. On authority of Prof. Small. "Wet places Louisiana."

CINNA L., SP. PL. 5. 1753

CINNA ARUNDINACEA L.—Britton & Brown, Illus. Flora I, 158, Fig. 360. Small Flora 125. Beale 317. Am. Grasses I, Fig. 317. Common in wet and swampy places over the whole State, though nowhere very abundant.

AGROSTIS L. SP. PL. (1753) IN PART

AGROSTIS ALBA L.—Britton & Brown, Illus. Flora I, 159, Fig. 362. Small Flora 126. Beale 332. Am. Grasses II, 187, Fig. 483. Found occasionally as a weed in the streets of New Orleans and Shreveport and in cultivated fields.

AGROSTIS ALTISSIMA (WALT) TUCKERMAN. (*A. data Trin.*)—Britton & Brown, Illus. Flora I, 162, Fig. 369. Small Flora 126. Beale 334. Occasional on the edges of swamps, New Orleans.

AGROSTIS ELLIOTTIANA SCHULT. (*A. arachnoides Ell.*)—Britton & Brown, Illus. Flora I, 160, Fig. 364. Small Flora 127. Beale 322. Am. Grasses I, 146, Fig. 140. In dry sandy soil, Tangipahoa.

AGROSTIS HYEMALIS (WALT.) B. S. P. (*Agrostis scabra Willd.*)—Britton & Brown, Illus. Flora I, 167, Fig. 368. Small Flora 126. Beale 327. Common as a weed in waste ground in vicinity of New Orleans.

AGROSTIS INTERMEDIA SCRIBN.—Britton & Brown, Illus. Flora I, 162, Fig. 369. Small Flora 126. On authority of Dr. Mohr. Plant Life of Alabama, 370.

AGROSTIS PERENNANS (WALT.) TUCKERMAN.—Britton & Brown, Illus. Flora I, 161, Fig. 367. Small Flora 126. Beale 328. Am. Grasses II, 182, Fig. 478. On borders of little creeks West Feliciana. Reported by Langlois from vicinity of Pointe a la Hache. This is one of the very many Northern plants found in West Feliciana.

AGROSTIS VERTICILLATA VILL.—Small Flora 126. Beale 329. Am. Grasses II, 188, Fig. 484. On the authority of Rev. A. B. Langlois, *Catalogue Provisoire de la Basse-Louisianne*.

HOLCUS L. SP. PL. 1047.

1753

HOLCUS LANATUS L.—Britton & Brown, Illus. Flora I, 168, Fig. 384. Small Flora 128. Beale 359. Found occasionally as a weed in cultivated ground in vicinity of Baton Rouge and New Orleans.

TRISETUM PERS. SYN. 1:97.

1805

TRISETUM LUDOVICIANUM DUDLEY.—Small Flora 130. Beale 374. Within a few miles of New Orleans on the west side of the Mississippi, in the edges of the partially cleared swamps.

TRISETUM PENNSYLVANICUM (L.) BEAUV. (*T. palustre Torr.*)—Britton & Brown, Illus. Flora I, 171, Fig. 392. Small Flora 130. Am. Grasses I, 165, Fig. 159. More common than the preceding, but in similar situations.

AVENA L. SP. PL. 79.

1753

AVENA FATUA L.—Beale 384. Am. Grasses II., 203, Fig. 499. On authority of Rev. A. B. Langlois, *Catalogue Provisoire de Plantes de la Bassc-Louisianne*.

AVENA SATIVA L.—Small Flora 130. Beale 385. Frequently found growing on the sides of railroads and fields and waste places of any kind.

ARRHENATHERUM BEAUV. AGROST. 55.

1812

ARRHENATHERUM ELATICUS (L.) BEAUV.—Britton & Brown, Illus. Flora I, 173, Fig. 396. Small Flora 131. Beale 387. Am. Grasses I, 167, Fig. 161. Collected by the writer in waste places in vicinity of Shreveport and Alexandria. Not common.

DANTHONIA D. C. FL., FRANCE, 3:32.

1805

DANTHONIA SERICEA NUTT.—Britton & Brown, Illus. Flora I, 174, Fig. 399. Small Flora 131. Beale 390. Am. Grasses I, 176, Fig. 170. Only once collected by the writer. A large clump growing by the side of the railroad near Slidell.

DANTHONIA SPICATA (L.) BEAUV.—Britton & Brown, Illus. Flora I, 174, Fig. 397. Small Flora 131. Beale 391. Am. Grasses I, 174, Fig. 168. Not uncommon in dry soil in vicinity of Baton Rouge.

CAPRIOLA ADAMS FAM. PL. 2:31.

1763

CYNODON.

CAPRIOLA DACTYLON (L.) KUNTZE. (*Cynodon Dactylon Pers.*)—Britton & Brown, Illus. Flora I, 175, Fig. 400. Small Flora 131. Beale 395. Am. Grasses I, 171, Fig. 165. Common everywhere.

CAPRIOLA DACTYLON VAR. MARITIMA NEES.—Chapman Flora 608. This form described by Chapman and which appears to the writer to be well marked, is common on the edges of Lake Ponchartrain and on the borders of bayous. Readily distinguished from the type by its much larger size, by the greater number of spikes and by the greater breadth and shortness of the leaves.

SPARTINA GRACILIS TRIN.—Britton & Brown, Illus. Flora I, 176, Fig. 404. Beale 399. Am. Grasses I, 181, Fig. 175. On authority of Rev. A. B. Langlois. *Catalogue Provisoire de Plantis de la Basse-Louisianne.*

SPARTINA JUNCIFORMIS ENGELM & GRAY.—Small Flora 132. Beale 400. Am. Grasses I, 182, Fig. 176. Very abundant on shores of Lake Pontchartrain and in Cameron Parish, near Gulf Biologic Station.

SPARTINA PATENS (AIT.) MUHL. (*S. juncea* Ellis.)—Britton & Brown, Illus. Flora I, 176, Fig. 403. Small Flora 132. Beale 398. Am. Grasses I, 180, Fig. 174. Very common in the salt marshes at Cameron and elsewhere near the coast.

SPARTINA POLYSTACHYA (MICHX.) ELL.—Britton & Brown, Illus. Flora I, 176, Fig. 402. Small Flora 132. Beale 398. Am. Grasses I, 178, Fig. 172. The commonest of all the species in vicinity of New Orleans, especially on the edges of bayous near Lake Pontchartrain.

SPARTINA STRICTA MARITIMA (WALT.) SCRIBN. (*S. stricta* var. *glabra* Muhl.), (*S. glabra* Muhl.)—Britton & Brown, Illus. Flora I, 177. Small Flora 132. Beale 400. Am. Grasses I, 183, Fig. 177. Common in the salt marshes of Cameron.

CAMPULOSUS DESV. BULL. SOC. PHILOM 2:189 1810

CAMPULOSUS AROMATICUS (WALT.) SCRIBN. (*C. tenuum Americanum* Spreng.)—Britton & Brown, Illus. Flora I, 177, Fig. 406. Small Flora 132. Beale 401. Am. Grasses I, 184, Fig. 178. One of the most conspicuous grasses of the pine barrens between Slidell and Covington and on the Calcasieu prairies.

EUSTACHYS DESV.

EUSTACHYS PETRAEA (SW.) DESV. (*Chloris petraea* Sw.), (*C. Swartziana* Doell.)—Small Flora 135. Beale 408. Am. Grasses I, 188, Fig. 182. Common but not abundant on the salt marshes at Cameron. Not seen elsewhere by the writer.

GYMNOPOGON BEAUV. AGROST. 41. 1812

GYMNOPOGON AMBIGUUS (MICHX) B. S. P. (*G. racemosus Beauv.*)—Britton & Brown, Illus. Flora I, 178, Fig. 408. Small Flora 136. Beale 411. Am. Grasses I, 198, Fig. 192. In much the same situations as the last, but apparently not so common. Collected near Covington, Amite and Shreveport.

GYMNOPOGON BREVIFOLIUS TRIN.—Britton & Brown, Illus. Flora I, 179, Fig. 409. Small Flora 136. Beale 411. Am. Grasses I, 198, Fig. 192. In much the same situations as the last, but apparent not so common. Collected near Covington, Amite and Shreveport.

BONTELOUA LAG. VAR. CIENC. 1805

BONTELOUA CURTIPENDULA (MICHX) TORR. (*Atheropogon curtispendus (Michx) Fourn.*)—Britton & Brown, Illus. Flora I, 180, Fig. 413. Small Flora 137. Beale 422. Am. Grasses I, 201, Fig. 195. In dry sandy fields, near Alexandria and Shreveport.

BONTELOUA HIRSUTA LAG.—Britton & Brown, Illus. Flora I, 180, Fig. 411. Small Flora 137. Beale 417. Am. Grasses I, 211, Fig. 205. Collected several times in Caddo Parish at different localities in dry open fields.

ELUSINE GAERTN. FRUCT & SEM. 1:7. 1788

ELUSINE INDICA (L.) GAERTN.—Britton & Brown, Illus. Flora I, 181, Fig. 415. Small Flora 138. Beale 430. Fig. 78. Am. Grasses I, 215, Fig. 209. A common and troublesome weed everywhere.

DACTYLOCTENIUM WILLD. ENUM. 1029. 1809

DACTYLOCTENIUM AEGYPTIUM DESF.—Britton & Brown, Illus. Flora I, 182, Fig. 416. Small Flora 138. Beale 429. Am. Grasses I, 216, Fig. 210. A very common weed in dry, cultivated fields and in gardens.

LEPTOCHLOA BEAUV. AGROST. 71. 1812

LEPTOCHLOA LANGLOISH VASEY (*L. scabra* Nees.)—Small Flora 139. Beale 432. Am. Grasses I, 221, Fig. 215. Very common on the edges of swamps, especially in the vicinity of New Orleans on both sides of the river. According to Beale, Small and Scribner occurring in Louisiana only of the United States.

LEPTOCHLOA MUCRONATA (MICHX) KUNTH.—Britton & Brown, Illus. Flora I, 182, Fig. 417. Small Flora 139. Beale 432, Fig. 79. Am. Grasses I, 220, Fig. 214. A common weed in cultivated ground throughout the State.

LEPTOCHLOA MUCRONATA PULCHELLA SCRIBN.—Beale 433. This variety is extremely abundant inside the levees of the Mississippi on the battures. If the river is low enough it can always be found. According to Beale it is found also in Texas, Arizona and Southern California.

LEPTOCHLOA NEALLEYI VASEY.—Small Flora 139. Beale 433. Am. Grasses I, 222, Fig. 216. This is another Western species fairly common in Cameron Parish, near the sea. According to Small, found "in low land Central and Southern Texas."

PHRAGMITES TRIN. FUND. AGROST. 134. 1820

PHRAGMITES PHRAGMITES (L.) KARST. (*P. communis* Trin.)—Britton & Brown, Illus. Flora I, 184, Fig. 420. Small Flora 141. Beale 459, Fig. 92. Am. Grasses I, 235, Fig. 229. On borders of bayous and edges of swamps, especially in the more southern portion of the State.

TRIDENS R. & S.

TRIDENS AMBIGUUS (ELL.) SCHUTT. (*Triodia ambigua* (Ell.) Vasey), (*Tricuspis ambigua* (Ell.) Chapm.), (*Poa ambigua* Ell.), (*Sieglingia ambigua* (Ell.) Kuntze).—Small Flora 142. Beale 465. Am. Grasses I, 239, Fig. 232. Common in the pine barrens in the vicinity of Covington and Mandeville.

TRIDENS SESLEROIDES (MICHX) NASH. (*Triodia cuprea* Jacq.), (*Sieglingia sesleroides* Scribn.)—Britton & Brown, Illus. Flora I, 184, Fig. 421. Small Flora 142. Beale 467, Fig. 93. Common in fields and gardens over the entire State.

TRIDENS STRICTUS (NUTT) NASH. (*Sieglingia stricta* (Nutt) Kuntze), (*Tricuspis stricta* Thurb.)—Britton & Brown, Illus. Flora I, 185, Fig. 422. Small Flora 143. Am. Grasses II, 211, Fig. 507. A common species on the prairies of Calcasieu and in Cameron, near the sea beach.

TRIDENS TEXANUS (THURB) NASH. (*Triodia Texana* Thurb.), (*Sieglingia Texana* (Thurb.) Kuntze).—Small Flora 142. Beal 466. Am. Grasses I, 237, Fig. 231. In the pine barrens near Covington and in the vicinity of Lake Charles.

TRIPLASIS BEAUV. AGROST. 81.

1812

TRIPLASIS AMERICANA BEAUV.—Small Flora 144. Beale 466. On prairies of Calcasieu and in Cameron Parish. Reported by Langlois from Pointe a la Hache.

TRIPLASIS PURPUREA (WALT.) CHAPMAN. (*Triodia purpurea* Hack.), (*Tricuspis purpurea* A. Gray), (*Sieglingia purpurea* Kuntze).—Britton & Brown, Illus. Flora I, 185, Fig. 424. Small Flora 144. Beale 469. Am. Grasses II, 213, Fig. 509. In dry prairies Calcasieu and Cameron.

DIPLACHNE BEAUV. AGROST. 80.

1812

DIPLACHNE FASCICULARIS (LAM.) BEAUV. (*Leptochloa fascicularis* Gray.)—Britton & Brown, Illus. Flora I, 186, Fig. 426. Small Flora 145. Beale 435. Am. Grasses I, 218, Fig. 212. Abundant on the shores of Grand Lake Cameron Parish.

DIPLACHNE HALEI NASH.—Small Flora 146. Inserted on authority of Prof. Small. "Salt marshes Louisiana to Texas."

DIPLACHNE IMBRICATA (THURB) SCRIBN. (*Leptochloa imbricata* Thurb.)—Beale 435. Am. Grasses I, 220, Fig. 214. Collected by Prof. S. M. Tracy at Cameron and kindly sent to the writer. Beale gives the range of this grass as Southern California, Arizona, Mexico. Scribner Am. Grasses gives Texas to Southern California. This, therefore, is another of the Western species which find their Eastern limit in Louisiana.

ERAGROSTIS BEAUV. AGROST. 70.

1812

ERAGROSTIS CAPILLARIS (L.) NEES.—Britton & Brown, Illus. Flora I, 187, Fig. 428. Small Flora 147. Beale 481. Am. Grasses I, 249, Fig. 243. A common weed in cultivated ground over the entire State.

ERAGROSTIS CAPITATA (NUTT) NASH.—Small Flora 149. Collected by writer only in the vicinity of Shreveport. According to Small, found in wet, sandy soil. Arkansas and Louisiana to Nebraska, New Mexico and Texas.

ERAGROSTIS CILIARIS (L.) LINK.—Small Flora 147. Beale 479. Am. Grasses I, 254, Fig. 248. Plant not seen by the writer. Inserted here on the authority of Rev. A. B. Langlois, *Catalogue Provisoire de Plantes de la Basse-Louisianne*, 1887.

ERAGROSTIS ERAGROSTIS (L.) KARST. (*E. Minor* Host.)—Britton & Brown, Illus. Flora I, 189, Fig. 432. Beale 486. Occurring occasionally as a weed in cultivated ground in New Orleans.

ERAGROSTIS ELLIOTII S. WATS. (*E. nitida* Ellis.)—Small Flora 148. In dry sandy soil near Shreveport.

ERAGROSTIS FRANKII STEUD.—Britton & Brown, Illus. Flora I, 188, Fig. 429. Small Flora 147. Beale 480. Am. Grasses I, 253, Fig. 247. In low ground and on edges of swamps. New Orleans and Mandeville.

ERAGROSTIS GLOMERATA (WALT.) DEWEY. (*E. conferta* Trin.)—Small Flora 147. Beale 481. Am. Grasses I, 252, Fig. 246. Very common everywhere in ditches and low places and on the borders of creeks and bayous.

ERAGROSTIS HIRSUTA (MICHX) NASH.—Small Flora 147. Occurring occasionally as a weed in vicinity of New Orleans and Shreveport.

ERAGROSTIS HYPNOIDES (L.) B. S. P. (*E. reptans* Nees.)—Britton & Brown, Illus. Flora I, 192, Fig. 440. Small Flora 149. Beale 478. Am. Grasses I, 251, Fig. 245. Abundant in wet places over the entire State.

ERAGROSTIS MAJOR HOST.—Britton & Brown, Illus. Flora I, 189, Fig. 432. Small Flora 148. Beale 486. Am. Grasses II, 215, Fig. 511. In dry cultivated grounds, especially vegetable gardens in most parts of the State.

ERAGROSTIS PECTINACEA GGAY.—Britton & Brown, Illus. Flora I, 190, Fig. 436. Small Flora 148. Beale 488. Am. Grasses I, 249, Fig. 243. In dry soil near Covington.

ERAGROSTIS PURSHII SCHRAD.—Britton & Brown, Illus. Flora I, 189, Fig. 431. Small Flora 147. Beale 487. Am. Grasses I, 247, Fig. 241. A common weed everywhere in dry cultivated soil.

ERAGROSTIS REFRACTA (Muhl.) Scribn. (*E. campestris* Trin.)—Britton & Brown, Illus. Flora I, 191, Fig. 447. Small Flora 148. Beale 488. On the edges of swamps, New Orleans.

ERAGROSTIS SECUNDIFLORA PRESL. (*E. oxylepis* Torr.)—Britton & Brown, Illus. Flora I, 191, Fig. 439. Small Flora 148. Beale 482. Am. Grasses II, 220, Fig. 516. Very common on the sea shore at Cameron, not observed elsewhere by the writer.

ERAGROSTIS TRICHODES (NUTT) NASH. (*E. tenuis* A. Gray.)
—Britton & Brown, Illus. Flora I, 191, Fig. 438. Small Flora
148. Am. Grasses II, 217, Fig. 217. Plant not seen by writer.
Inserted on authority of Scribner in above bulletin. "Sand
hills and prairies Illinois to Nebraska, Louisiana, Indian Terri-
tory and Texas.

EATONIA RAF. JOURN. PHYS. 89:104. 1819

EATONIA LONGIFLORA (VASEY) BEALE.—Small Flora 150.
Beale 494. Dry sandy soil, near Alexandria.

EATONIA OBTUSATA (MICHX) A. GRAY.—Britton & Brown,
Illus. Flora I, 192, Fig. 441. Small Flora 149. Beale 492.
Am. Grasses I, 258, Fig. 252. Common all over the State. .

EATONIA PENNSYLVANICA (D. C.) A. GRAY.—Britton &
Brown, Illus. Flora I, 193, Fig. 442. Small Flora 149. Beale
493. Am. Grasses I, 257, Fig. 251. On the edges of the swamps,
occasional in most parts of the State.

KOELERIA PERS. SYN. PL. 1:97. 1805

KOELERIA CRISTATA (L.) PERS.—Britton & Brown, Illus.
Flora I, 194, Fig. 444. Small Flora 150. Beale 495, Fig. 99.
Occuring occasionally in different parts of Caddo Parish.

MELICA L. SP. PL. 66.

MELICA MUTICA WALT.—Britton & Brown, Illus. Flora I,
195, Fig. 448. Small Flora 150. Beale 505. Am. Grasses I,
263, Fig. 257. Not common, but scattered over the whole State.
Collected by the writer in West Feliciana, Calcasieu, Caddo.

UNIOLA L. SP. PL. 71. 1753

UNIOLA LATIFOLIA MICHX.—Britton & Brown, Illus. Flora
I, 197, Fig. 452. Small Flora 151. Beale 516. Am. Grasses
I, 270, Fig. 264. Very common on the edges of swamps and
banks of streams over the entire State.

UNIOLA LAXA (L.) B. S. P. (*U. gracilis Michx.*)—Britton &
Brown, Illus. Flora I, 197, Fig. 451. Small Flora 151. Beale
517. Am. Grasses I, 272, Fig. 266. Common in dry soil and in
open woods over the whole State.

UNIOLA LONGIFOLIA SCRIBN.—Small Flora 151. Beale 517. Am. Grasses II, 234, Fig. 530. In dry pine barrens near Slidell and Covington.

UNIOLA PANICULATA L.—Britton & Brown, Illus. Flora I, 198, Fig. 453. Small Flora 151. Beale 516. Am. Grasses I, 271, Fig. 265. In sands along the sea shore Grand Isle.

UNIOLA SESSILIFLORA POIR. (*U. nitida* Baldwin.)—Small Flora 151. Beale 517. Am. Grasses II., 235, Fig. 531. In wet pine barrens between Slidell and Covington.

UNIOLA ORNITHORHYNCA NEES.—Small Flora 151. Plant not known to the writer. Inserted here on authority of Prof. Small. "In low woods Mississippi and Louisiana."

DISTICHLIS RAF. JOURN. PHYS. 89:104. 1819

DISTICHLIS SPICATA (L.) GREENE. (*D. Maritima* Raf.)—Britton & Brown, Illus. Flora I, 198, Fig. 454. Small Flora 152. Beale 518. Am. Grasses I, 273, Fig. 267. Common along the beach Cameron and Grand Isle.

DACTYLIS L. SP. PL. 71. 1753

DACTYLIS GLOMERATA L.—Britton & Brown, Illus. Flora I, 200, Fig. 457. Small Flora 152. Beale 524. Am. Grasses I, 275, Fig. 269. Found occasionally in cultivated ground, in the northern part of the State.

POA L. SP. PL. 67. 1753

POA ANNUA L.—Britton & Brown, Illus. Flora I, 201, Fig. 459. Small Flora 153. Beale 530. Am. Grasses II, 237, Fig. 533. Common everywhere in shady places, blooming very early in the year, often in January or February.

POA ARACHNIFERA TORR.—Small Flora 154. Beale 535. Am. Grasses II, 246, Fig. 542. Occasional on prairies in neighborhood of Lake Charles.

POA AUTUMALIS MUHL. (*Poa flexuosa* Muhl.)—Britton & Brown, Illus. Flora I, 206, Fig. 472. Small Flora 154. Beale 533. In open woods. St. Tammany and Tangipahoa.

POA COMPRESSA L.—Britton & Brown, Illus. Flora I, 202, Fig. 460. Small Flora 154. Beale 546. Am. Grasses II, 248,

Fig. 544. A common grass in vicinity of New Orleans, blooming very early, in January or February.

POA PRATENIS L.—Britton & Brown, Illus. Flora I, 204, Fig. 406. Small Flora 153. Beale 543. Am. Grasses I, 279, Fig. 273. Occurring occasionally on sides of roads, corners of fields and edges of swamps over the entire State.

POA SYLVESTRIS A. GRAY.—Britton & Brown, Illus. Flora I, 206, Fig. 474. Small Flora 153. Beale 537. Am. Grasses I, 281, Fig. 275. In woods Hammond, Covington, and West Feliciana.

POA TRIVIALIS L.—Britton & Brown, Illus. Flora I, 204, Fig. 468. Small Flora 153. Beale 532. Am. Grasses II, 243, Fig. 539. Plant has not been seen by the writer. Inserted on authority of Rev. A. B. Langlois, *Catalogue Provisoire de la Basse-Louisianne*, 1887.

PANICULARIA FABR. ENUM. HORT. HELMST. 373, 1763 GLYCERIA R. BR.

PANICULARIA FLUITANS (L.) KUNTZE. (*Glyceria fluitans* R. Br.)—Britton & Brown, Illus. Flora I, 213, Fig. 491. Small Flora 155. Beale 570. Am. Grasses I, 291, Fig. 285. Not uncommon in shallow water or on the edges of water courses, St. Tammany, West Feliciana. Also reported by Langlois in his catalogue. Small gives southern boundary as North Carolina.

FESTUCA L. SP. PL. 73. 1753

FESTUCA ELATIOR L.—Britton & Brown, Illus. Flora I, 218, Fig. 203. Small Flora 156. Beale 588. In woods West Feliciana and Caddo.

FESTUCA OBTUSA SPRENG. (*F. Shortii* Kunth.)—Britton & Brown, Illus. Flora I, 218, Fig. 503. Small Flora 156. Beale 589. Am. Grasses II, 278, Fig. 574. Common in dry woods Hammond and other places along the Illinois Central Railroad.

FESTUCA MYURUS L.—Britton & Brown, Illus. Flora I, 216, Fig. 498. Small Flora 155. Beale 586. Am. Grasses II, 285 Fig. 581. Dry sandy soil Slidell and Covington.

FESTUCA OCTOFLORA WALT. (*F. tenella* Willd.)—Britton & Brown, Illus. Flora I, 216, Fig. 497. Small Flora 156. Beale

586. Very common in dry barren soil between Slidell and Covington and in similar situations throughout the State.

FESTUCA SCIUREA NUTT.—Small Flora 156. Am. Grasses II, 283, Fig. 579. In similar situations to the preceding, but not nearly so common.

FESTUCA RIGIDA (L.) KUNTH.—Beale 587. Plant not seen by writer. Inserted here on authority of Rev. A. B. Langlois, *Catalogue Provisoire de Plantes de la Basse-Louisianne*, 1887.

BROMUS L. SP. PL. 1:76.

1753

BROMUS CILIATUS L.—Britton & Brown, Illus. Flora I, 219, Fig. 506. Small Flora 157. Beale 618. Am. Grasses II, 287, Fig. 583. Found on the banks of the Mississippi a little above New Orleans.

BROMUS RECEMOSUS L.—Britton & Brown, Illus. Flora I, 222, Fig. 515. Small Flora 157. Beale 627. Occasional in cultivated ground in vicinity of New Orleans.

BROMUS SECALINUS L.—Britton & Brown, Illus. Flora I, 222, Fig. 514. Small Flora 157. Beale 625. Am. Grasses I, 297, Fig. 291. In cultivated ground as a weed. Not common.

BROMUS UNIOLOIDES (WILLD.) H. B. K.—Britton & Brown, Illus. Flora I, 224, Fig. 519. Small Flora 157. Beale 616. Am. Grasses I, 299, Fig. 293. The commonest of the *Bromus* species in this State. In waste ground in most parts of the State.

LOLIUM L. SP. PL. 83.

1753

LOLIUM PERENNE L.—Britton & Brown, Illus. Flora I, 225, Fig. 521. Small Flora 158. Beale 629. Am. Grasses I, 301, Fig. 295. Occasional as a weed in cultivated ground New Orleans.

LOLIUM TEMULENTUM L.—Britton & Brown, Illus. Flora I, 225, Fig. 522. Small Flora 158. Beale 630. Am. Grasses II, Fig. 587. With the preceding. Reported by Langlois from Pointe-a-la-Hache.

LEPTURUS R. BR. PRODR. FL. NOV. HOLL. 1:207. 1810

LEPTURUS FILIFORMIS (ROTH) TRIN.—Britton & Brown, Illus. Flora I, 226, Fig. 523. Beale 633, Fig. 119. Am. Grasses II, 292, Fig. 588. In waste places Caddo in vicinity of Shreveport.

HORDEUM L. SP. PL. 1:84.

1753

HORDEUM NODOSUM L. (*H. pratense* Huds.)—Britton & Brown, Illus. Flora I, 228, Fig. 529. Small Flora 159. Beale 645. Am. Grasses II, 313, Fig. 609. In open fields near Baton Rouge.

HORDEUM PUSILLUM HACK.—Britton & Brown, Illus. Flora I, 229, Fig. 530. Small Flora 159. Am. Grasses II, 314, Fig. 610. A very common weed in cultivated ground in the vicinity of New Orleans.

ELYMUS L. SP. PL. 1:83.

1753

ELYMUS CANADENSIS L.—Britton & Brown, Illus. Flora I, 231, Fig. 535. Small Flora 160. Beale 654. Not uncommon on the banks of rivers (not Mississippi) and bayous in most parts of the State.

ELYMUS STRIATUS WILLD.—Britton & Brown, Illus. Flora I, 230, Fig. 533. Small Flora 160. Beale 655. Am. Grasses II, 315, Fig. 611. Collected at Wakefield in West Feliciana and in vicinity of Shreveport.

ELYMUS VIRGINICUS L.—Britton & Brown, Illus. Flora I, 230, Fig. 534. Small Flora 160. Beale 653. Am. Grasses II, 316, Fig. 612. Not very abundant but distributed all over the State. More abundant in West Feliciana than any other part of the State.

ELYMUS GLABRIFOLIUS VASEY.—Studies in American Grasses, Bull. 24, U. S. Department of Agriculture, page 49. Inserted on authority of Lamson-Scribner & C. R. Ball. "Type specimen collected in low miry places by Rev. A. B. Langlois at Pointe-a-la-Hache. Also collected by C. R. Ball in Arcadia.

ARUNDINARIA MICHX. FL. BR. AM. 1:73.

1803

ARUNDINARIA TECTA (WALT.) MUHL.—Britton & Brown, Illus. Flora I, 233, Fig. 542. Small Flora 161. Beale 659. All over the State. In view of the fact that it is so often stated that this plant blooms only at intervals of several or many years, it is worth noticing that certain clumps have been observed by the writer near Abita Springs, which have bloomed every year, in the latter part of May, since 1899.

* ARUNDINARIA MACROSPERMA MICHX.—Small Flora 161. Beale 658. Am. Grasses II, 331, Fig. 627. Occurring all over the State. This plant has never been seen by the writer in bloom.

